

In the Drawings:

Approval of changes to FIG., 2 as indicated in red is hereby requested. The change removes the numerical designation "29" at the decision block to compare T\_EXO and T\_EXO\_THRES as requested by the Examiner.

where?

In the Claims:

A clean copy of the amended claims is presented below, a comparison copy is attached:

*sub D2*  
*BB*  
4. (Amended) A method for controlling hydrocarbon injection into an engine exhaust to reduce NOx in such exhaust, such engine exhaust with the NOx and the injected hydrocarbon being directed to a catalyst for reaction therein, comprising:

- (a) detecting an exothermic reaction across the catalyst; (b) detecting a temperature of an output of the catalyst in response to the detected exothermic reaction; and
- (c) injecting the hydrocarbon into the reaction in accordance with the detected temperature.

*sub D2*  
*BB*  
6. (Amended) A method for determining peak efficiency temperature of a catalyst in reducing NOx wherein such NOx is reduced by reacting such NOx in the catalyst with a hydrocarbon, comprising:

- (a) detecting a temperature difference across the catalyst;
  - (b) comparing the temperature difference with a predetermined temperature threshold;
- and
- (c) determining an exothermic condition temperature at an output of the catalyst when the temperature difference is determined to exceed the threshold.